REMARKS

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Summary of Telephone Interview with Examiner

Applicants wish to kindly thank the Examiner and his Primary Examiner for providing their time and helpful comments during the telephonic interview of May 12, 2009.

During the interview, Applicants discussed the possibility of replacing the current claims with method of treatment claims. The Examiners indicated that replacing the current claims with claims directed to one method would be acceptable. The Examiners further indicated that they would consider arguments corresponding to the new claims.

Applicants also discussed the rejection under 35 U.S.C. § 112, first paragraph. The Examiner recommended deleting the term "prophylactic" to overcome this rejection.

Applicants also indicated that they would amend the claims to recite "anti-Alzheimer's disease drugs" rather than "anti-Alzheimer's drugs", in accordance with the Examiner's suggestion.

Regarding the prior art rejections, the Examiner indicated that he had not considered the "method limitations", since the claims were in the form of product claims. Accordingly, the Examiners recommended that Applicants submit arguments corresponding to the method recited in the amended claims in response to the outstanding Office Action. The Examiner indicated that he would consider these arguments, in light of the claim amendments, and provide Applicants with his opinion.

Again, Applicants kindly thank the Examiners for their helpful comments.

Claim Amendments

Claims 1-5 have been cancelled, without prejudice or disclaimer.

New claims 6 and 7 have been added to the application, and recite method claims which correspond to prior claims 1 and 4.

No new matter has been added to the application by these amendments.

Rejection Under 35 U.S.C. § 112, First Paragraph

The rejection of claims 2-4 under 35 U.S.C. § 112, first paragraph, has been rendered moot in view of the above-discussed claim amendments. Specifically, new claims 6 and 7 do not include the term "prophylactic". Accordingly, it is respectfully requested that the above-rejection be withdrawn.

Rejection Under 35 U.S.C. § 112, Second Paragraph

The rejection of claim 4 under 35 U.S.C. § 112, second paragraph, has been rendered moot in view of the above-discussed claim amendments. Specifically, new claim 7 recites "anti-Alzheimer's disease drugs" instead of "anti-Alzheimer's drugs", as recommended by the Examiner. Accordingly, it is respectfully requested that the above-rejection be withdrawn.

Patentability Arguments

The patentability of the present invention over the disclosures of the references relied upon by the Examiner in rejecting the claims will be apparent upon consideration of the following remarks.

Rejections Under 35 U.S.C. § 102(b)

The rejection of claims 1-5 under 35 U.S.C. § 102(b) as being anticipated by Stocker (WO 02/04031) has been rendered moot by the cancellation of the rejected claims. Applicants provide the following comments regarding the patentability of new claims 6 and 7 over the cited reference.

The Position of the Examiner

The Examiner indicates that the [recitation] of intended use in the preamble is not given patentable weight since the body of the claims fully sets forth all of the limitations of the claimed invention. The Examiner takes the position that Stocker discloses a probucol-derived bisphenol, and since Stocker teaches the same compound as in the claimed invention, it is assumed that the

probucol bisphenol inherently stabilizes ABCA1.

Applicants' Arguments

As discussed above, Applicants' amended claims recite a method for increasing expression of ABCA1.

Stocker discloses that probucol and probucol-derived bisphenol exert anti-oxidation. For diphenoquinone, Stocker discloses:

> The corresponding oxidation product, diphenoquinone, is incapable of acting as an co-antioxidant, as judged by its high anti-TMP index and inability to cause the decay of α-tocopheroxyl radical (Table 8).
> (Please see page 26, lines 13 to 16 of Stocker, attached hereto as Appendix 2.)

Additionally, probucol spiroquinone (SQ) has no anti-oxidation activity. This fact is verified through experiments. Please see Figure 4A of the unpublished document, Arakawa et al., "Pharmacological Inhibition of ABCAl Biodegradation Increases HDL Biogenesis and Exhibits Antiatherogenesis", attached hereto as Appendix 3.

In addition, as apparent from the presumable metabolism pathway of probucol (Appendix 4), probucol diphenoquinone (DQ) is an SQ-derived metabolite product, derived by oxidation of SQ. Therefore, one of ordinary skill in the art must readily infer that the oxidation activity of DQ is weaker than that of SQ.

The Stocker document is based on the concept that an inhibitor of lipoprotein oxidation would be assumed to be useful in treatment of atherosclerosis. Stocker never teaches or suggests increasing expression of ABCAl with a bisphenol compound selected from the group consisting of probucol spiroquinone (SQ), probucol diphenoquinone (DQ) and probucol bisphenol (BH).

The Examiner states, "it is assumed that the probucol inherently stabilizes ABCA1." However, this assumption is moot because neither probucol spiroquinone (SQ) nor probucol diphenoquinone (DQ) exert anti-oxidation activity, while probucol bisphenol (BH) is considered to be a co-antioxidant. If Examiner's assumption were correct, SQ and DQ would act as anti-oxidants or co-antioxidants in the same manner as BH.

The present invention is based on the novel discovery that probucol spiroquinone (SQ), probucol diphenoquinone (DQ) and probucol bisphenol (BH) are effective stabilizers for ABCAl, which is a key molecule for controlling the level of blood HDL enabling lipids like cholesterol and triglycerides to be transported within the water-based blood stream.

As shown in Assay Example 1 of Applicants' specification, probucol spiroquinone (SQ), probucol diphenoquinone (DQ) and probucol bisphenol (BH) all increase ABCA1 expression compared to the control. The cited reference fails to teach or suggest Applicants' claimed method.

Accordingly, it is respectfully requested that the above-rejection be withdrawn.

The rejection of claims 1-3 and 5 under 35 U.S.C. § 102(b) as being anticipated by McLean et al. (Lipids) has been rendered moot by the cancellation of the rejected claims. Applicants provide the following comments regarding the patentability of new claims 6 and 7 over the cited reference.

The Position of the Examiner

The Examiner takes the position that McLean et al. teach probucol, probucol spiroquinone (SQ), probucol diphenoquinone (DQ) and probucol bisphenol (BH). The Examiner indicates that although McLean et al. do not teach that these compounds are ABCA1 stabalizers, their ability to stabilize ABCA1 would be inherent.

Applicants' Arguments

Again, Applicants note that the amended claims are directed to a method for increasing expression of ABCA1. McLean at al. merely disclose biological actions exerted by three probucol metabolites, probucol spiroquinone (SQ), probucol diphenoquinone (DQ) and probucol bisphenol (BH), wherein said biological actions are only related to interactions with cholesterol esters and cholesterol incorporations (inclusions) into cells.

Particularly, for probucol spiroquinone (SQ) and probucol diphenoquinone (DQ), it is noted that McLean et al. disclose the following:

> By contrast, the spiroquinone metabolite of probucol and the diphenoquinone metabolite common to both molecules have minimal effects on the liquid-crystalline transitions of cholesteryl oleate. At 20 mol%, neither compound has as great an effect as 1 mol% MDL29,311. . . In cells fed with the spiroquinone or diphenoquinone metabolites, the lipid inclusions are liquid-crystalline and resemble those observed with cholesterol-fed controls.

McLean et al. are completely silent regarding a method of increasing expression of ABCA1 with a bisphenol compound selected from the group consisting of probucol spiroquinone (SQ), probucol diphenoquinone (DQ) and probucol bisphenol (BH).

Accordingly, it is respectfully requested that the above-rejection be withdrawn.

Conclusion

Therefore, in view of the foregoing amendments and remarks, it is submitted that each of the grounds of rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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